

Kansas Department of Health and Environment

Bureau of Environmental Remediation, Remedial Section

State Water Plan Contamination Remediation Program



Former Webster/Miller Refinery Cleanup Project

Background:

The Former Webster/Miller Refinery Site originally operated as a oil refinery that shut down in the late 1920s and is now agricultural land. Investigations conducted by KDHE's State Water Plan program indicated the presence of elevated levels of polynuclear aromatic hydrocarbons in surface soil and ground water samples, plus low levels of volatile organic compounds in the subsurface soil. A Risk Screening and Evaluation conducted during these investigations also indicated the exposed tar pits pose environmental hazards to wildlife, particularly waterfowl. A Corrective Action Study was completed in September 1999 to determine options for remediating the site. Options considered include excavation of sludge with off-site disposal, or on site stabilization of the waste sludge.



Excavation of primary sludge pit.

Solution:

During the fall of 2002 the site transitioned from the Corrective Action Plan stage to the Corrective Action stage and the site was remediated. The remediation activities removed sludge material from the two sludge pits and the "chemist pit" area at the site, as well as a sludge breakout area discovered during remediation activities. These remedial activities were designed to eliminate the threat to surface waters posed by the sludge pond in the flood-prone area as well as address any impacts to animals in the area. There has been a history of wildlife wandering into the sludge pits and becoming trapped. Over 3,100 cubic feet of water material was excavated at the site.

The waste was replaced by clean fill material and the area was vegetated to match the existing vegetation. The excavated material was transported to the waste treatment cell on the western portion of the property. This material was mixed with cement kiln dust from a nearby cement plant, and encapsulated. During the sludge removal and treatment, on-going testing of the treated material indicated that the low pH material was neutralized, and the mobility of the sludge was stabilized. The clay and soil cap was placed, and vegetation was established.



Primary sludge pit. 9/9/02

Benefits:

- **3,100 cubic feet of contaminated water material excavated and removed from the site.**